

Abstract of the Disclosure

In a method of manufacturing a capacitor by performing a multi-stepped wet treatment on the surface of a metal electrode, a lower metal electrode of a capacitor is formed, and a primary wet treatment is performed on the surface of the lower metal  
5 electrode to remove unwanted surface oxides that may exist on the surface of the lower metal electrode. A secondary wet treatment is then performed on the surface of the lower metal electrode by using a different etchant than the etchant used in the primary wet treatment, in order to remove unwanted surface organic materials that may exist on the surface of the lower metal electrode. A dielectric layer is then formed on the lower  
10 metal electrode using a high-k dielectric material. An upper metal electrode is formed on the dielectric layer.

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